

A method and apparatus for ceramizing the starting glass of glass-ceramics

Abstract

The invention relates to a method for ceramizing starting glass of glass-ceramics into glass-ceramics, comprising at least the following steps:

- 1.1 the starting glass is heated from an initial temperature T_1 to a temperature T_2 which is disposed above the glass transformation temperature T_G at which crystallization nuclei are precipitated;
- 1.2 the glass is held at the temperature T_2 for a period t_2 for the precipitation of crystallization nuclei;
- 1.3 the glass is further heated to a temperature T_3 at which a crystal phase grows on the nuclei formed following step 1.1 and 1.2;
- 1.4 the glass is held for a period t_3 at a temperature T_3 or heated during this period to a higher temperature T_4 until the predetermined properties of the glass-ceramics have been reached;
- 1.5 the control of the temperature curve is performed with the help of a control loop comprising at least one temperature sensor for sensing the temperature and a heating unit as an actuator.

The invention is characterized in that

- 1.6 the heating unit comprises IR radiators for heating the glass to be relaxed with a thermal dead time of less than 10 secs., especially < 5 secs.

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